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CHRISTOPHER J. PALERMO
HICKMAN PALERMO TRUONG & BECKER LLP
1600 WILLOW STREET
SAN JOSE, CA 95125-5106

EXAMINER

BOUTAH, ALINA A

| ART UNIT | PAPER NUMBER |
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2143

DATE MAILED: 01/29/2004

18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/496,600

Applicant(s)

ZHANG ET AL.

Examiner

Alina N Boutah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Response to Amendment

This action is in response to amendment received December 1, 2003. Claims 1-40 are pending in this application.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 29, 2003 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,389,464 issued to Krishnamurthy et al. in view of USPN 6,913,037 issued to Spofford et al.

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(Amended) Regarding claim 1, Krishnamurthy et al. teach a method for obtaining a current value of a Management Information Base (MIB) variable stored in a managed network device in a network, the method comprising the steps of:

receiving a connection of a Web browser to a first managed network device (column 7, lines 54-65);

receiving at the first network device an HTTP request message from the browser to obtain the current value of the MIB variable (column 8, lines 62 – column 9, lines 1-54);

receiving the current value of the MIB variable from the MIB of the network device (column 7, lines 66-67 – column 8 lines 1-15); and

communicating the current value of the MIB variable from the first managed network device to the browser using an HTTP reply message (column 10, lines 48-54; figures 25-27).

However, Krishnamurthy et al. fail to explicitly teach receiving and communicating the value of a MIB variable from the first managed network device to which the MIB variable pertains. Spofford teaches receiving and communicating a variable of a MIB variable from a first managed device to which the MIB variable pertains (col. 2, lines 1-6; figure 1). At the time the invention was made, one of ordinary skill in the art would have been motivated to receive and communicate the value of a MIB by directly querying the managed network device in order to quickly access the MIB variable, thus enhancing the network's efficiency.

Regarding claim 2, Krishnamurthy et al. teach the method of claim 1, further comprising the steps of:

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creating and storing a MIB object tree in a memory of the first managed network device (column 19, lines 48-54; column 20, lines 49-57);

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree (figures 25-27);

communicating the electronic document to the Web browser (figures 25-27).

Regarding claim 3, Krishnamurthy et al. teach the method of claim 1, wherein the step of receiving the current value of the MIB variable from the MIB of the first managed network device includes the steps of creating and storing a MIB object tree in a memory of the first managed network device (column 19, lines 48-54; column 20, lines 49-57); obtaining the MIB variable from the MIB object tree in the memory of the first managed network device (column 10, lines 63-67 – column 11, lines 1-8).

Regarding claim 4, Krishnamurthy et al. teach the method of claim 1, further comprising the steps of:

creating and storing a MIB object tree in a memory of the network device (column 19, lines 48-54; column 20, lines 49-57);

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree (figures 25-27);

receiving a user selection of one of the MIB variables based on the electronic document (102 figure 4; figures 25-27; column 7, lines 54-65);

wherein the step of receiving the current value of the MIB variable from the MIB of the first managed network device includes the step of obtaining the MIB variable that is identified in the user selection from the MIB object tree in the memory of the first managed network device (figures 25-26).

Regarding claim 5, Krishnamurthy et al. teach the method of claim 1, further comprising:
receiving the HTTP request message to obtain the current value of the MIB variable at an HTTP-SNMP interface (col. 3, lines 16-33; col. 4, lines 7-11; col. 7, lines 54-65);

creating an SNMP query that requests a current value of the MIB variable based on the HTTP request message (column 7, lines 54-65; column 8, lines 62-67 – column 9, lines 1-8); and
communicating the SNMP query to an SNMP daemon of the first managed network device (column 7, lines 66-67 – column 8 lines 1-15; column 8, lines 62 – column 9, lines 1-54).

Regarding claim 6, Krishnamurthy et al. teach the method of claim 1, further comprising the steps of:

communicating the current value of the MIB variable to the HTTP-SNMP interface (col. 3, lines 16-33; col. 4, lines 7-11; col. 7, lines 54-65);

creating and storing an HTML page that contains the current value of the MIB variable (col. 4, lines 43-53; col. 6, lines 36-44); and

sending the HTML page to an HTTP daemon of the first managed network device (col. 7, lines 54-65).

Regarding claim 7, Krishnamurthy et al. teach the method of claim 1, further comprising the step of creating and storing an executable software element in association with the Web browser, wherein the executable software element is configured for packaging an SNMP query into the request from the Web browser (column 2, lines 24-55, column 8, lines 24-47).

Regarding claim 8, although Krishnamurthy et al. do not explicitly disclose the method of claim 1, wherein the step of receiving a request from the Web browser to obtain the current value of the MIB variable includes the step of unpackaging an SNMP query that is packaged in the request from the Web browser to identify the MIB variable, it is well known in the art that in order for obtain the current value of the MIB, the SNMP request must be packaged and unpackaged at the web browser.

Regarding claim 9, Krishnamurthy et al. teach the method of claim 8, further comprising the step of sending the SNMP query to an SNMP daemon of the first managed network device (column 7, lines 66-67 – column 8 lines 1-15; column 8, lines 62 – column 9, lines 1-54).

Regarding claim 10, although Krishnamurthy et al. do not explicitly disclose the method of claim 8, wherein the step of returning the current value of the MIB variable to the Web browser includes the step of repackaging the current value of the MIB variable into an HTTP reply message, by the principle of inherency, in order for the web browser to receive the current value of the MIB, it must be repackaged in the reply message.

Regarding claim 11, Krishnamurthy et al. teach a network device, comprising:
a processor (column 19 line 63);
a Management Information Base (MIB) logically accessible by the processor and comprising one or more stored values of MIB variables (column 19, lines 63-67 – column 20, lines 1-8);

a Simple Network Management Protocol (SNMP) daemon executed by the processor (column 2, lines 24-55);

a Hypertext Transfer Protocol (HTTP) daemon executed by the processor (column 7, lines 54-65);

stored instructions for obtaining a current value of a Management Information Base (MIB) variable stored in a managed network device which, when executed by the processor, cause the processor to carry out the steps of:

receiving a connection of a Web browser to a first managed network device (column 7, lines 54-65);

receiving at the first managed network device an HTTP request message from the browser to obtain the current value of one of the MIB variable (column 8, lines 54-56);

receiving the current value of the MIB variable from the MIB of the network device (column 7, lines 66-67 – column 8 lines 1-15; column 8, lines 62 – column 9, lines 1-54); and

communicating the current value of the MIB variable from the network device to the browser using an HTTP reply message (column 10, lines 48-54; figures 25-27).

However, Krishnamurthy et al. fail to explicitly teach receiving and communicating the value of a MIB variable from the first managed network device to which the MIB variable

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pertains. Spofford teaches receiving and communicating a variable of a MIB variable from a managed device to which the MIB variable pertains (col. 2, lines 1-6; figure 1). At the time the invention was made, one of ordinary skill in the art would have been motivated to receive and communicate the value of a MIB by directly querying the managed network device in order to quickly access the MIB variable, thus enhancing the network's efficiency.

Regarding claim 12, Krishnamurthy et al. teach the network device of claim 11, wherein the instructions further cause the processor to carry out the steps of:

creating and storing a MIB object tree in a memory of the first managed network device (column 19, lines 48-54; column 20, lines 49-57);

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree (figures 25-27);

communicating the electronic document to the Web browser (figures 25-27).

Regarding claim 13, Krishnamurthy et al. teach the network device of claim 11, wherein the step of receiving the current value of the MIB variable from the MIB of the first managed network device includes the steps of creating and storing a MIB object tree in a memory of the first managed network device (column 19, lines 48-54; column 20, lines 49-57); obtaining the MIB variable from the MIB object tree in the memory of the first managed network device (column 10, lines 63-67 – column 11, lines 1-8).

Regarding claim 14, Krishnamurthy et al. teach the network device of claim 11, wherein the instructions further cause the processor to carry out the steps of:

creating and storing a MIB object tree in a memory of the first managed network device (column 19, lines 48-54; column 20, lines 49-57);

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree (figures 25-27);

receiving a user selection of one of the MIB variables based on the electronic document (102 figure 4; figures 25-27; column 7, lines 54-65);

wherein the step of receiving the current value of the MIB variable from the MIB of the first managed network device includes the step of obtaining the MIB variable that is identified in the user selection from the MIB object tree in the memory of the first managed network device (figures 25-26).

Regarding claim 15, Krishnamurthy et al. teach the method of claim 11, further comprising an HTTP-SNMP interface which, when executed by the processor, causes the processor to carry out to steps of:

receiving the HTTP request message to obtain the current value of the MIB variable at an HTTP-SNMP interface (col. 3, lines 16-33; col. 4, lines 7-11; col. 7, lines 54-65);

creating an SNMP query that requests a current value of the MIB variable based on the HTTP request message (column 7, lines 54-65; column 8, lines 62-67 – column 9, lines 1-8); and

communicating the SNMP query to an SNMP daemon of the first managed network device (column 7, lines 66-67 – column 8 lines 1-15; column 8, lines 62 – column 9, lines 1-54).

Regarding claim 16, Krishnamurthy et al. teach the network device of claim 11, further comprising the steps of:

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communicating the current value of the MIB variable to the HTTP-SNMP interface (col. 3, lines 16-33; col. 4, lines 7-11; col. 7, lines 54-65);

creating and storing an HTML page that contains the current value of the MIB variable (col. 4, lines 43-53; col. 6, lines 36-44); and

sending the HTML page to an HTTP daemon of the network device (col. 7, lines 54-65).

Regarding claim 17, Krishnamurthy et al. teach a computer-readable medium carrying one or more sequences of one or more instructions for obtaining a current value of a Management Information Base (MIB) variable stored in a managed network device in a network, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:

receiving a connection of a Web browser to a first managed network device (column 7, lines 54-65);

receiving at the first network device an HTTP request message from the browser to obtain the current value of the MIB variable (column 8, lines 62 – column 9, lines 1-54);

receiving the current value of the MIB variable from the MIB of the network device (column 7, lines 66-67 – column 8 lines 1-15); and

communicating the current value of the MIB variable from the network device to the browser using an HTTP reply message (column 10, lines 48-54; figures 25-27).

However, Krishnamurthy et al. fail to explicitly teach receiving and communicating the value of a MIB variable from the first managed network device to which the MIB variable pertains. Spofford teaches receiving and communicating a variable of a MIB variable from a

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managed device to which the MIB variable pertains (col. 2, lines 1-6; figure 1). At the time the invention was made, one of ordinary skill in the art would have been motivated to receive and communicate the value of a MIB by directly querying the managed network device in order to quickly access the MIB variable, thus enhancing the network's efficiency.

Regarding claim 18, Krishnamurthy et al. teach the computer-readable medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of creating and storing a MIB object tree (column 19, lines 48-54; column 20, lines 49-57);

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree (figures 25-27);

communicating the electronic document to the Web browser (figures 25-27).

Regarding claim 19, Krishnamurthy et al. teach the computer-readable medium as recited in claim 17, wherein receiving the current value of the MIB variable from the MIB of the first managed network device includes the steps of creating and storing a MIB object tree in a memory of the first managed network device (column 19, lines 48-54; column 20, lines 49-57); obtaining the MIB variable from the MIB object tree in the memory of the first managed network device (column 10, lines 63-67 – column 11, lines 1-8).

Regarding claim 20, Krishnamurthy et al. teach the computer-readable medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:

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creating and storing a MIB object tree in a memory of the first managed network device (column 19, lines 48-54; column 20, lines 49-57);

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree (figures 25-27);

receiving a user selection of one of the MIB variables based on the electronic document (102 figure 4; figures 25-27; column 7, lines 54-65);

wherein receiving the current value of the MIB variable from the MIB of the first managed network device includes the step of obtaining the MIB variable that is identified in the user selection from the MIB object tree in the memory of the first managed network device (figures 25-26).

Regarding claim 21, Krishnamurthy et al. teach the computer-readable medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:

receiving the HTTP request message to obtain the current value of the MIB variable at an HTTP-SNMP interface (col. 3, lines 16-33; col. 4, lines 7-11; col. 7, lines 54-65);

creating an SNMP query that requests a current value of the MIB variable based on the HTTP request message (column 7, lines 54-65; column 8, lines 62-67 – column 9, lines 1-8); and

communicating the SNMP query to an SNMP daemon of the first managed network device (column 7, lines 66-67 – column 8 lines 1-15; column 8, lines 62 – column 9, lines 1-54).

Regarding claim 22, Krishnamurthy et al. teach the computer-readable medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:

communicating the current value of the MIB variable to the HTTP-SNMP interface (col. 3, lines 16-33; col. 4, lines 7-11; col. 7, lines 54-65);

creating and storing an HTML page that contains the current value of the MIB variable (col. 4, lines 43-53; col. 6, lines 36-44); and

sending the HTML page to an HTML daemon of the first managed network device (col. 7, lines 54-65).

Regarding claim 23, Krishnamurthy et al. teach an HTTP browser program including a plug-in executable software element configured for obtaining a current value of a Management Information Base (MIB) variable stored in a managed network device in a network and which, when executed by a processor that executes the browser, causes the processor to carry out the steps of:

connecting browser to the network device (column 7, lines 54-65);

translating an SNMP query to a HTTP request message (col. 3, lines 16-33; col. 4, lines 7-11; col. 7, lines 54-65);

communicating the HTTP request message from the browser to the network device to obtain the current value of the MIB variable (column 8, lines 62 – column 9, lines 1-54);

receiving, in an HTTP reply message, the current value of the MIB variable from the MIB of the network device (column 7, lines 66-67 – column 8 lines 1-15); and

displaying the current value of the MIB variable using the browser (figures 25 and 26).

However, Krishnamurthy et al. fail to explicitly teach receiving and communicating the value of a MIB variable from the managed network device to which the MIB variable pertains.

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Spofford teaches receiving and communicating a variable of a MIB variable from a managed device to which the MIB variable pertains (col. 2, lines 1-6; figure 1). At the time the invention was made, one of ordinary skill in the art would have been motivated to receive and communicate the value of a MIB by directly querying the managed network device in order to quickly access the MIB variable, thus enhancing the network's efficiency.

Regarding claim 24, Krishnamurthy et al. teach an applet executable in a browser program and configured for obtaining a current value of a Management Information Base (MIB) variable stored in a managed network device in a network and which, when executed by the browser, causes the browser to carry out the steps of:

connecting the browser to the network device (column 7, lines 54-65);

translating an SNMP query to a HTTP request message (col. 3, lines 16-33; col. 4, lines 7-11; col. 7, lines 54-65);

communicating the HTTP request message from the browser to obtain current value of the MIB variable (column 8, lines 62 – column 9, lines 1-54);

receiving the current value of the MIB variable from the MIB of the network device (column 7, lines 66-67 – column 8 lines 1-15); and

displaying the current value of the MIB variable using the browser (figures 25 and 26).

However, Krishnamurthy et al. fail to explicitly teach receiving and communicating the value of a MIB variable from the managed network device to which the MIB variable pertains. Spofford teaches receiving and communicating a variable of a MIB variable from a managed device to which the MIB variable pertains (col. 2, lines 1-6; figure 1). At the time the invention

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was made, one of ordinary skill in the art would have been motivated to receive and communicate the value of a MIB by directly querying the managed network device in order to quickly access the MIB variable, thus enhancing the network's efficiency.

Claims 25-27 and 28-30 have similar limitations as claims 8-10, therefore are rejected under the same rationale.

Claims 31-40 have similar limitations as claims 1-10, therefore are also rejected under the same rationale.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alina N Boutah whose telephone number is (703) 305-5104. The examiner can normally be reached on Monday-Thursday (9:00 am-7:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


ANB


DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100